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10/714,766	11/17/2003	Takeaki Nakamura	17264	3358
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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/714,766  
Filing Date: November 17, 2003  
Appellant(s): NAKAMURA, TAKEAKI

**MAILED**  
**DEC 28 2006**  
**GROUP 3700**

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Thomas Spinelli  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed September 29, 2006 appealing from the  
Office action mailed September 13, 2005.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

6602185	Uchikubo	10-2002
6659939	Moll et al.	12-2003

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,602,185 to Uchikubo in view of U.S Patent No. 6,659,939 to Moll et al.

**In regards to claims 1, 4 and 8-21,** Uchikubo discloses a remote operation support system and method of using the remote operation support system comprising: a first control system 24 disposed in an operating room 5; a second control system 32 disposed in a primary support room 6; wherein the a first control system which comprises: an imaging device 10 for imaging a portion to be treated of a patient under operation to obtain an image signal; a first transmission/reception device 27 for transmitting the image signal supplied from the imaging device to the second control system, simultaneously transmitting patient information regarding the patient under operation to the third control system, and receiving support information from the second control system; and a reproduction device 22 for displaying the image signal and reproducing the support information (see Fig. 1). Uchikubo is silent with respect to a third control system located in a secondary support room. Moll et al. teach of an analogous remote telesurgical system having multiple master control rooms in which several master surgeons are available to offer support to the surgeon in the operating room. Therefore, a third control system would be present in a secondary support room (see Fig. 27). This third control system would be connected to the control systems in both the primary support room and the operating room, enabling cooperative surgery (see Col. 45, Lines 50-56). It would have been obvious to one skilled in the art to have

at least one secondary support room with a third control system in the system of Uchikubo to provide numerous advantages. As taught by Moll et al. having multiple master surgeons and additional support rooms would ensure the master surgeon does not have to scrub in and out of every procedure. Further, the master surgeon may become extremely specialized in performing part of a surgical procedure by performing just that part of a procedure over and over on many more patients than he otherwise would be able to treat. Thus, particular surgical procedures having distinct portions might be performed much more quickly by having multiple surgeons, with each surgeon each performing one part of the procedure and then moving onto another procedure, without scrubbing between procedures. Moreover, if one or more patients (for whatever reason) would benefit by having a surgeon actually be present, an alternative surgeon (different from the master surgeon) may be on call to one or more operating rooms, ready to jump in and address the patient's needs in person, while the master surgeon moves on treat another patient. Due to increased specialization, further advances in the quality of medical care may be achieved (see Col. 46, Lines 26-52).

**In regards to claims 2-3,** Uchikubo discloses a remote operation support system having two-way communication between each control system (see Fig. 1), but is silent with respect to one-way communication between control systems. The remote control system of Moll et al. teach of each control system being independent of each other (see Col. 45, Lines 25-28). It would have been obvious to one skilled in the art at the time the invention was made to have independent control systems in the system of

Uchikubo to enable multiple surgeons to work on independent aspects of surgery at the same time as taught by Moll et al. (see Col. 45, Lines 15-56).

**In regards to claims 5,** Uchikubo discloses a remote operation support system but is silent with respect a switch for switching between control systems. Moll et al. teach of an analogous remote operation support system having a switch 958 for switching between control systems (see Col 46, Lines 1-25). With the addition of a third control system and a secondary support room, the switch would switch between both the third and second control systems or all three control systems. It would have been obvious to one skilled in the art at the time the invention was made to include a switch in the system of Uchikubo in order allow control over the desired support being transmitted to the operating room as taught by Moll et al.

**In regards to claim 6,** Uchikubo discloses a remote operation support system, wherein the imaging device includes an endoscopic imaging device 9 having an imaging optical system and an imaging element to image a body cavity, and the first control system further comprises: an image processing unit 14 for converting the image signal, obtained by photoelectric conversion through the imaging element of the endoscopic imaging device, into a video signal; and a first display 22 for displaying an endoscopic image based on the video signal converted and generated through the image processing unit (see Col. 4, Lines 23-54).

**In regards to claim 7,** Uchikubo discloses a remote operation support system, wherein the first control system further comprises: a visual-field control unit for controlling an imaging area or the viewing direction of the endoscopic imaging device;

and a first control unit for controlling at least the visual-field control unit, at least one of the second and third control systems further includes: a second control unit for generating an instruction signal to control the visual-field control unit to the first control unit, and the instruction signal generated through the second control unit is transmitted to the first control unit to control the imaging area or the viewing direction of the endoscopic imaging device (see Col. 1, Lines 55-60). Moll et al. teach of the surgeons ability to control the movement of the imaging device (see Col. 45, Lines 50-56).

#### **(10) Response to Argument**

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Moll et al. teaches that having multiple master surgeons and additional support rooms would ensure the master surgeon does not have to scrub in and out of every procedure. Further, the master surgeon may become extremely specialized in performing part of a surgical procedure by performing just that part of a procedure over and over on many more patients than he otherwise would be able to treat. Thus, particular surgical procedures having distinct portions might be performed much more quickly by having multiple surgeons, with each surgeon each performing one part of the procedure and

then moving onto another procedure, without scrubbing between procedures. Moreover, if one or more patients (for whatever reason) would benefit by having a surgeon actually be present, an alternative surgeon (different from the master surgeon) may be on call to one or more operating rooms, ready to jump in and address the patient's needs in person, while the master surgeon moves on to treat another patient. Due to increased specialization, further advances in the quality of medical care may be achieved (see Col. 46, Lines 26-52). As broadly as claimed, the combination of Uchikubo and Moll can be interpreted to read on the recited claims of the present invention.

In response to the Applicant's argument that Moll et al. and Uchikubo fail to confront the same problems as the inventor, it has been held that the mere fact that the prior art references of record fail to evince an appreciation of the problem identified and solved by applicant is not, standing alone, conclusive evidence of the nonobviousness of the claimed subject matter. The references may suggest doing what an applicant has done even though workers in the art were ignorant of the existence of the problem. *In re Gershon*, 152, USPQ 602 (CCPA 1967).

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a

reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Applicant further states that the combination of Uchikubo and Moll fails to teach or fairly suggest one or more secondary support rooms for receiving and processing information from the operating room and transmitting a processing result to a primary support room. However, Moll et al. teach of a system wherein cooperation between multiple systems is possible. The choice of how many masters and how many corresponding slaves to enable a cooperating surgical system is arbitrary. Within the scope of the present invention, one may construct a single telesurgical system's architecture to handle five or six manipulators (e.g., two masters and three or four slaves) or ten or twelve manipulators (e.g., four masters and six or eight manipulators), although any number is possible. For a system having multiple master controls, the system may be arranged so that two operators can operate the same surgical system at the same time by controlling different slave manipulators and swapping manipulators (see Col. 44, Lines 50-65). Thus Moll et al. teach of a system having multiple master control rooms in which several master surgeons are available to offer support to the surgeon in the operating room. Therefore, if multiple master control rooms are used, the system would then have one or more secondary support rooms for receiving and processing information from the operating room and transmitting a processing result to a primary master control room which can then be further transmitted to the operating room as in the recited claims.

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

  
Matthew J. Kasztejna  
Examiner, Art Unit 3739

12/18/16

Conferees:

  
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SUPERVISORY PATENT EXAMINER  
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Tom Hughes